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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,937	09/26/2003	Timothy B. Stockwell	ABIOS.042A	9457
22896	7590	12/27/2005	EXAMINER	
MILA KASAN, PATENT DEPT. APPLIED BIOSYSTEMS 850 LINCOLN CENTRE DRIVE FOSTER CITY, CA 94404			ZHOU, SHUBO	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/672,937	STOCKWELL ET AL.
	Examiner	Art Unit
	Shubo (Joe) Zhou	1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 December 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 19-42 and 44 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 and 43 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/4/04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Amendments***

Applicants' election, without traverse, of Group I (claims 1-18 and 43) in the response filed 10/26/05 is acknowledged.

Claims 1-44 are currently pending, and claims 1-18 and 43 are under examination.

Claims 19-42 and 44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/26/05.

***Information Disclosure Statement***

The Information Disclosure Statement filed 5/4/04 has been entered and references therein have been considered. Initialed copy of the form PTO-1449 is herein enclosed.

***Specification***

The specification is objected to because of the following:

The title of the invention is not descriptive. The elected invention is drawn to method for sequence evaluation, however, the title is directed to "mitochondrial DNA autoscoring system." A new title is required that is clearly indicative of the invention to which the elected claims are directed.

The specification on pages 21 and 30 refers to “AB 1 format” of sequence information.

The term “AB 1 format” is confusing (note the numerical number “1”). It seems that it should be “ABI” format (note the English letter “I”) standing for the sequence format generated with a sequencer from “Applied Biosystems, Inc.” See page 10 of the specification.

The disclosure is objected to also because it contains an embedded hyperlink and/or other form of browser-executable code. Such code is present, e.g., on page 3, line 14 of the specification. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

“Table 2” is referred to in the specification on pages 32 and 34. However, the specification does not contain a Table 2, which is actually part of Figure 6. It is suggested that either Tables 1 and 2 in Figures 5 and 6, respectively, be amended to be part of the specification or the specification refers to corresponding figures that contain the tables.

Appropriate correction is required.

#### *Claim Rejections-35 USC § 112*

The following is a quotation of the **second** paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The metes and bounds of the limitation “reportable ranges” for the sample sequence information recited in claims 1 and 43 are unclear. The term “reportable” is a relative term which renders the claims indefinite. The term is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Without an explicit definition and a standard for ascertaining the requisite degree, one of ordinary skill in the art would not know what ranges of sequence information are reportable and what are not.

The metes and bounds of the limitation “major and minor bases” within the sample sequence information recited in claims 2, 5, 8, 11, etc. are unclear. The terms “major” and “minor” are relative terms which render the claims indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Without an explicit definition and a standard for ascertaining the requisite degree, one of ordinary skill in the art would not know what bases of the sequence information are major or minor because a base can be said to be a major base when it represents the majority of the bases or minor when it does not. Or a base can be said to be a major base when it is located in the major groove, or a minor base when it is located in the minor groove, of the double stranded DNA helix from which the base comes.

The phrase “the sequence information” recited in claim 18, line 1, lacks clear antecedent basis. There are “sequence information relating to at least one sample” and “sequence information relating to at least one reference” recited in claim 1, from which claim 18 depends. It is not clear which sequence information is meant in claim 18, the former, the latter, both or neither.

The metes and bounds of the meaning of the limitation “wherein the sequence information corresponds to mitochondrial DNA sequence information” recited in claim 18 are

unclear. It is not clear what is meant by having a sequence information from a sample that corresponds to mitochondrial DNA sequence information without an explicit definition for the term "correspond." The word "correspond" is defined as, *inter alia*, "to be similar or equivalent in character, quantity, origin, structure, or function" (*The American Heritage Dictionary of the English Language*, <http://www.bartleby.com/61/1/C0660100.html>). Thus, it could mean that the sequence information from the sample corresponds to mitochondrial DNA sequence information because they are identical, i.e. the sequence from the sample being mitochondrial sequence. Or it could also mean that they correspond to each other because they represent sequences that are similar in origin, structure or in function(s) encoded thereby, etc.

Clarification of the metes and bounds of the claims is requested.

### *Conclusion*

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shubo (Joe) Zhou, whose telephone number is 571-272-0724. The examiner can normally be reached Monday-Friday from 8 A.M. to 4 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Patent Analyst Tina Plunkett whose phone number is (571) 272-0549.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the

USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Shubo (Joe) Zhou, Ph.D.  
Patent Examiner



John S. Brusca 10 December 2005  
JOHN S. BRUSCA, PH.D.  
PRIMARY EXAMINER